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Training-to-Competency Matrix and Reference Guide for

# Miscellaneous Orders and Regulations

for DOE Technical Qualification Standards

Developed by  
*Oakland Operations Office*

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April 1997

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## Foreword

This matrix was developed through a query of Headquarters and Operations Office training coordinators. A data collection guide was used to pinpoint training courses that are currently available and up to date which specifically address the content of the DOE Order, standard, or regulation cited in the qualification standards. All references to orders and regulations have been validated as current through July 1, 1996. If an order has been replaced since its inclusion in the technical qualification standard, the replacement order is used in the matrix, followed by a listing of the original order in parentheses. If an order has been cancelled, it is noted in parentheses as well.

Approximately half of the offices responded to the query, and supplemental research was conducted using the DOE-wide online training database. All courses presented in the matrix were verified with the course providers to ensure that the courses are still available and current.

When using this matrix to locate training that meets the miscellaneous orders and regulations objectives of a standard, look up that standard in the table of contents. Where no existing training was found, a reading guide and quiz has been developed to assist interested personnel in meeting the training requirement for that particular order. We also recommend that Technical Qualification Program candidates first search their local training catalogs to maximize site-specific educational activities.

Please note: the cost associated with most of these courses was reported as no cost to the trainee. However, candidates should call for information to determine if there is a cost associated with attendance for those not working at that site.

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Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
1. General Technical Base	none					
2. Facility Representative Functional Area	2.1 A Facility Representative shall demonstrate a working level knowledge of the purpose, scope, and application of applicable DOE Orders.	O 440.1, <i>Worker Protection Management for DOE Federal and Contractor Employees</i> (O 3790.1B, <i>Federal Employee Occupational Safety and Health</i> )	Safety and Health Orientation at DOE	4	Professional Skills Training HR2 <i>Cheri Carter</i> 202-426-1347	\$0
		O 430.1, <i>Life Cycle Asset Management</i> (O 4330.4A, <i>Maintenance Management</i> , 6430.1A, <i>General Design Criteria</i> )	Life Cycle Asset Management	24	Professional Skills Training HR2 <i>Cheri Carter</i> 202-426-1347	\$0
		O 5400.3, <i>Hazardous and Radioactive Mixed Waste Program</i> (Cancelled)				
		O 231.1, <i>Environment, Safety and Health Reporting</i> (O 5400.5, <i>Radiation Protection of the Public and the Environment</i> )	Reading Guide	3	Oakland Operations Office <i>Margaret Sneaton</i> 510-637-1840	\$0

Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
2. Facility Representative Functional Area (cont'd)	2.1 (cont'd.)	O 451.1, <i>National Environmental Policy Act Compliance Program</i> (O 5440.1E, <i>National Environmental Policy Act Compliance Program</i> )	Overview of NEPA (Computer-based Training)	1	Martin Lockheed <i>John Fackenthal</i> 423-576-6587	\$0 (will send disks)
			NEPA Training	16	EH-42 <i>Linda Thurston</i> 202-586-1509	\$0
		O 5480.1B, <i>Environment, Safety, and Health Program for DOE Operations</i>	No training identified			
		O 460.1, <i>Packaging and Transportation Safety</i> (O 5480.3, <i>Safety Requirements for the Packaging and Transportation of Hazardous Materials, Hazardous Substances, and Hazardous Wastes</i> )	Reading Guide	2	Oakland Operations Office <i>Margaret Smeaton</i> 510-637-1840	\$0
		O 5480.4, <i>Environmental Protection, Safety, and Health Protection Standards</i> (Cancelled)				
		O 440.1, <i>Worker Protection Management for DOE Federal and Contractor Employees</i> (O 5480.7A, <i>Fire Protection</i> ; O 5480.10, <i>Contractor Industrial Hygiene Program</i> )	Safety and Health Orientation at DOE	4	Professional Skills Training HR2 <i>Cheri Carter</i> 202-426-1347	\$0

Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
2. Facility Representative Functional Area (cont'd)	2.1 (cont'd.)	O 5480.11, <i>Radiation Protection for Occupational Workers</i> (Cancelled)				
		O 5480.19, <i>Conduct of Operations Requirements for DOE Facilities</i>	Application of Outside Agency Codes, Standards and Regulations	24	SWEC (through SR) <i>Julie Madden</i> 803-725-9729	\$0
			Conduct of Operations	16	QTRC <i>Greg Hayward</i> 509-376-5004	\$0
			Fundamentals of DOE Operations	40	DOE-HR <i>George Kachadorian</i> 202-426-1320	\$0
			EM Conduct of Operations	68	DOE-EM <i>Carol MacKay</i> 202-586-3597	\$0
		O 5480.20A, <i>Personnel Selection, Qualification, Training, and Staffing Requirements for DOE Nuclear Facilities</i>	Reading Guide	3	Oakland Operations Office <i>Margaret Smeaton</i> 510-637-1840	\$0
		O 5480.21, <i>Unreviewed Safety Questions</i>	Unreviewed Safety Questions Overview	8	West Valley Nuclear Services Co., Inc. (through OH) 513-865-3110	\$0

Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
2. Facility Representative Functional Area (cont'd)	2.1 (cont'd.)	O 5480.22, <i>Technical Safety Requirements</i>	Technical Safety Requirements Preparation	24	WSRC (through SR) 803-725-9729	\$0
		O 5480.23, <i>Nuclear Safety Analysis Reports</i>	Safety Analysis Report Preparation	16	WSRC (through SR) 803-725-9729	\$0
		O 425.1, <i>Start-Up and Restart of Nuclear Facilities</i> (O 5480.31, <i>Start-Up and Restart of Nuclear Facilities</i> )	Reading Guide	2	Oakland Operations Office <i>Margaret Sneaton</i> 510-637-1840	\$0
		O 5482.1B, <i>Environment, Safety, and Health Protection Appraisal</i>	Reading Guide	2	Oakland Operations Office <i>Margaret Sneaton</i> 510-637-1840	\$0
		O 225.1, <i>Accident Investigation</i>	Reading Guide	2	Oakland Operations Office <i>Margaret Sneaton</i> 510-637-1840	\$0

Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
2. Facility Representative Functional Area (cont'd)	2.1 (cont'd.)	O 151.1, <i>Emergency Categories, Classes, and Notification Requirements</i> (O 5500.1B, <i>Emergency Management Systems</i> ; O 5500.2, <i>Emergency Categories, Classes, and Notification Requirements</i> ; O 5500.3A, <i>Planning and Preparedness for Operational Emergencies</i> ; 5500.10, <i>Emergency Readiness Assurance Program</i> )	Emergency Management in the DOE System	40	ORISE (through OH) 513-865-3110	\$0
3. Technical Manager	2.1 A technical manager shall demonstrate a working level knowledge of DOE Orders and Rules, Federal regulations, standards and requirements to ensure compliance.	No specific order	No training identified	N/A	Your local training office	\$0
4. Technical Training	None					
5. Radiation Protection	None					



Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
6. Environmental Restoration	4.8 Environmental restoration personnel shall demonstrate a familiarity level knowledge of the listed DOE Orders sufficient to conduct independent assessment of contractor and/or Federal employee work activities.	O 5480.19, <i>Conduct of Operations, Requirements for DOE Facilities</i>	Application of Outside Agency Codes, Standards and Regulations	24	SWEC (through SR) <i>Julie Madden</i> 803-725-9729	\$0
			Conduct of Operations	16	QTRC <i>Greg Hayward</i> 509-376-5004	\$0
			Fundamentals of DOE Operations	40	DOE-HR <i>George Kachadorian</i> 202-426-1320	\$0
			EM Conduct of Operations	68	DOE-EM <i>Carol MacKay</i> 202-586-3597	\$0
		O 5480.20A, <i>Personnel Selection, Qualification, Training, and Staffing Requirements at DOE Nuclear Facilities</i>	Reading Guide	3	Oakland Operations Office <i>Margaret Smeaton</i> 510-637-1840	\$0
		O 425.1, <i>Start-Up and Restart of Nuclear Facilities</i> (O 5480.31, <i>Start-Up and Restart of Nuclear Facilities</i> )	Reading Guide	2	Oakland Operations Office <i>Margaret Smeaton</i> 510-637-1840	\$0
		<i>Radiological Control Manual</i>	RadCon Manual Training for Supervisors	4	EH-52 <i>Pete O'Connell</i> 301-903-5641	\$0 (will send materials)

Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
7. Waste Management	None					
8. Environmental Compliance	None					
9. Fire Protection	None					
10. Emergency Management	None					
11. Occupational Safety	None					
12. Industrial Hygiene	None					
13. Nuclear Safety Systems	2.10 Nuclear safety system personnel shall demonstrate a and familiarity level knowledge of the listed DOE Orders, Technical Standards, and Notice	O 2300.1B, <i>Audit Resolution and Follow-up</i>	No training identified			
		O 2321.1B, <i>Auditing of Programs and Operations</i>	No training identified			
		O 231.1, <i>Environment, Safety and Health Reporting</i> (O 5400.5, <i>Radiation Protection of the Public and Environment</i> )	Reading Guide	3	Oakland Operations Office <i>Margaret Smeaton</i> 510-637-1840	\$0

Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
13. Nuclear Safety Systems (cont'd.)	2.10 (cont'd.)	O 5480.1B, <i>Environment, Safety and Health Program for DOE Operations</i>	No training identified			
		O 5480.11, <i>Radiation Protection for Occupational Workers</i> (cancelled)				
		O 5660.1B, <i>Management of Nuclear Materials</i>	Reading Guide	4	Oakland Operations Office <i>Margaret Sneaton</i> 510-637-1840	\$0
		DOE-STD-3006-95, <i>Planning and Conduct of Operational Readiness Reviews</i>	Reading Guide	3	Oakland Operations Office <i>Margaret Sneaton</i> 510-637-1840	\$0
		DOE-STD-1027-92, <i>Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports</i>	Reading Guide	3	Oakland Operations Office <i>Margaret Sneaton</i> 510-637-1840	\$0
		DOE-STD-3011-94, <i>Guidance for Preparation of DOE Order 5480.22 (TSR) and DOE Order 5480.23 (SAR) Implementation Plans</i>	Technical Safety Requirements Preparation  Safety Analysis Report Preparation	24  16	WSRC (through SR) 803-725-9729  WSRC (through SR) 803-725-9729	\$0  \$0

Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
13. Nuclear Safety Systems (cont'd.)	2.10 (cont'd.)	Secretary of Energy Notice 35-91, <i>Nuclear Safety Policy</i>	Reading Guide	1	Oakland Operations Office <i>Margaret Smeaton</i> 510-637-1840	\$0
14. Nuclear Explosives Safety	2.6 Nuclear explosives safety personnel shall demonstrate a familiarity level knowledge of the following DOE directives with respect to program requirements for nuclear explosive operations and associated activities.	O 5480.19, <i>Conduct of Operations Requirements for DOE Facilities</i>	Application of Outside Agency Codes, Standards and Regulations	24	SWEC (through SR) <i>Julie Madden</i> 803-725-9729	\$0
			Conduct of Operations	16	QTRC <i>Greg Hayward</i> 509-376-5004	\$0
			Fundamentals of DOE Operations	40	DOE-HR <i>George Kachadorian</i> 202-426-1320	\$0
			EM Conduct of Operations	68	DOE-EM <i>Carol MacKay</i> 202-586-3597	\$0
			Reading Guide	3	Oakland Operations Office <i>Margaret Smeaton</i> 510-637-1840	\$0
		O 5480.20A, <i>Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities</i>				
		O 430.1, <i>Life Cycle Asset Management</i> (O 4330.4B, <i>Maintenance Management Program</i> )	Life Cycle Asset Management	24	Professional Skills Training HR2 <i>Cheri Carter</i> 202-426-1347	\$0

Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
14. Nuclear Explosives Safety (cont'd.)	2.6 (cont'd.)	STD 1073-93, <i>Guide for Operational Configuration Management Programs</i>	Configuration Management	2	PANTEX <i>Art Barrera</i> 806-477-3762	
		O 232.1, <i>Occurrence Reporting and Processing of Operations Information</i> (O 5000.3B, <i>Occurrence Reporting and Processing of Operations Information</i> )	Introduction to Occurrence Reporting	2.5	Quality Training and Resource Center <i>Greg Hayward</i> 509-376-5004	\$0
		O 210.1, <i>Performance Indication and Analysis of Operations Information</i> (O 5480.26, <i>Trending and Analysis of Operations Information Using Performance Indicators</i> )	Performance Indicators	1.5	PANTEX <i>Art Barrera</i> 806-477-3762	\$0
		STD 1048-92, <i>Performance Indicator Guidance Document</i>	Performance Indicators	1.5	PANTEX <i>Art Barrera</i> 806-477-3762	\$0
		O 425.1, <i>Startup and Restart of Nuclear Facilities</i> (O 5480.31, <i>Startup and Restart of Nuclear Facilities</i> )	Reading Guide	2	Oakland Operations Office <i>Margaret Smeaton</i> 510-637-1840	\$0
15. Civil/Structural Engineering	None					

Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
16. Project Management	2.3 Project management personnel shall demonstrate a familiarity level knowledge of DOE Orders.	O 451.1, <i>National Environmental Policy Act Compliance Program</i> (O 5440.1, <i>National Environmental Policy Act Compliance Program</i> )	Overview of NEPA (Computer-based Training)  NEPA Training	1  16	Martin Lockheed <i>John Fackenthal</i> 423-576-6587  EH-42 <i>Linda Thurston</i> 202-586-1509	\$0
		O 440.1, <i>Worker Protection Management for DOE Federal and Contractor Employees</i>	Safety and Health Orientation at DOE	4	Professional Skills Training HR2 <i>Cheri Carter</i> 202-426-1347	\$0
		O 5480.1B, <i>Environment, Safety, and Health Program for DOE Operations</i>	No training identified			
		O 225.1, <i>Accident Investigation</i> (O 5484.1, <i>Environmental Protection, Safety, and Health Protection Information Reporting Requirements</i> )	Reading Guide	2	Oakland Operations Office <i>Margaret Sneaton</i> 510-637-1840	\$0
17. Safeguards and Security	None	O 5480.4, <i>Environmental Protection, Safety, and Health Protection Standards</i> (Cancelled)				

Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
18. Electrical Systems	None					
19. Instrumentation and Control	3.2 Instrumentation and control personnel shall demonstrate a working level knowledge of the record-keeping requirements for instrumentation and control systems and equipment as specified by DOE Orders	O 430.1, <i>Life Cycle Asset Management</i> (O 4700.1, <i>Project Management System</i> )	Life Cycle Asset Management	24	Professional Skills Training HR2 <i>Cheri Carter</i> 202-426-1347	\$0
		O 232.1, <i>Occurrence Reporting and Process of Operations Information</i> (O 5000.3, <i>Occurrence Reporting and Processing of Operations Information</i> )	Introduction to Occurrence Reporting	2.5	Quality Training and Resource Center <i>Greg Hayward</i> 509-376-5004	\$0
20. Facility Maintenance Management	Facility maintenance management personnel shall demonstrate a familiarity level knowledge of the facility maintenance management-related sections and/or requirements of the following related DOE Orders	O 430.1, <i>Life Cycle Asset Management</i> (O 4320.2A, <i>Capital Asset Management Process</i> )	Life Cycle Asset Management	24	Professional Skills Training HR2 <i>Cheri Carter</i> 202-426-1347	\$0
		O 5480.4, <i>Environmental Protection, Safety, and Health Protection Standards</i> (Cancelled)				

Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
20. Facility Maintenance Management (cont'd.)		O 440.1, <i>Worker Protection Management for DOE and Contractor Employees</i> (O 5480.10, <i>Contractor Industrial Hygiene Program</i> ; O 5483.1A, <i>Occupational Safety and Health Program for DOE Contractor at Government-Owned Contractor-Owned Facilities</i> )	Safety and Health Orientation at DOE	4	Professional Skills Training HR2 <i>Cheri Carter</i> 202-426-1347	\$0
		O 5480.11, <i>Radiation Protection for Occupational Workers</i> (cancelled)				
		O 430.1, <i>Life Cycle Asset Management</i> (O 6430.1A, <i>General Design Criteria</i> )	Life Cycle Asset Management	24	Professional Skills Training HR2 <i>Cheri Carter</i> 202-426-1347	\$0
21. Construction Management and Engineering	3.2 Construction management and engineering personnel shall demonstrate a familiarity level knowledge of record keeping requirements specified by the listed DOE Orders.	O 430.1, <i>Life Cycle Asset Management</i> (O 4700.1, <i>Project Management System</i> )	Life Cycle Asset Management	24	Professional Skills Training HR2 <i>Cheri Carter</i> 202-426-1347	\$0
		O 232.1, <i>Occurrence Reporting and Processing of Operations Information</i> (O 5000.3B, <i>Occurrence Reporting and Processing of Operations Information</i> )	Introduction to Occurrence Reporting	2.5	Quality Training and Resource Center <i>Greg Hayward</i> 509-376-5004	\$0



Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
22. Mechanical System	None					
23. Environment and Health Resident	2.1 EH Residents shall demonstrate an expert level knowledge of the functions and responsibilities of the EH Resident as defined in DOE Order 5480.17, <i>Site Safety Representative</i> .	O 5480.17, <i>Site Safety Representative</i> (cancelled)				
		O 1700.1, <i>Freedom of Information Program</i>	The Freedom of Information and The Privacy Act Workshop	2	USDA Graduate School 202-401-9194	\$275
		O 5480.6, <i>Safety of DOE-Owned Reactors</i> (Cancelled)				\$0
	2.3 EH Residents shall demonstrate a familiarity level knowledge of the following DOE Orders.	O 440.1 <i>Worker Protection Management Program for DOE Federal and Contractor Employees</i> (O 5480.7A, <i>Fire Protection</i> )	Application of Outside Agency Codes, Standards and Regulations	24	SWEC (through SR) Julie Madden 803-725-9729	\$0

Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
23. Environment and Health Resident (cont'd.)	2.3 (cont'd.)	O 5700.6C, <i>Quality Assurance</i>	DOE 5700.6C Orientation	4	Turner, Harper & Associates (through SR) 803-725-9729	\$0
			DOE 5700.6C Overview	4	EH-62 Ann Ecton 301-903-3889	\$0
		O 5480.29, <i>Employee Concerns Management System</i>	Reading Guide	3	Oakland Operations Office Margaret Sneaton 510-637-1840	\$0
		O 425.1, <i>Start-up and Restart of Nuclear Facilities</i> (O 5480.31, <i>Start-up and Restart of Nuclear Facilities</i> )	Reading Guide	2	Oakland Operations Office Margaret Sneaton 510-637-1840	\$0
		DOE-STD-3006-95, <i>Planning and Conduct of Operational Readiness Reviews</i>	Reading Guide	3	Oakland Operations Office Margaret Sneaton 510-637-1840	\$0
	2.11 EH Residents shall demonstrate a familiarity level knowledge of the requirements in DOE Order 5480.4, <i>Environmental Protection, Safety, and Health Protection Standards</i> .	O 5480.4, <i>Environmental Protection, Safety, and Health Protection Standards</i> (Cancelled)				

Technical Qualification Standard	Competency/ Objective	Order/Regulation	Course/Activity Description	Hours	Source	Cost
	2.15 EH Residents shall demonstrate a familiarity level knowledge of DOE Order 1300.2A, <i>Department of Energy Technical Standards Program</i> .	O 1300.2A, <i>Department of Energy Technical Standards Program</i>	Reading Guide	2	Oakland Operations Office <i>Margaret Sneathon</i> 510-637-1840	\$0
	2.17 EH Residents shall demonstrate a working level knowledge of the provisions of 10 CFR 820 <i>Appendix A, General Statement of Enforcement Policy</i> .	10 CFR 820, <i>Appendix A, General Statement of Enforcement Policy</i>	DOE Regulatory System Awareness Standards-Based Management and "The New Rules"	4	Turner, Harper & Associates (through OH) 513-865-3110	\$0
	2.23 EH Residents shall demonstrate a working level knowledge of the Engineered Safeguard Features (ESF) and environmental monitoring sections and/or requirements of DOE Order 6430.1A, <i>General Design Criteria, Division 1, General Requirements and Division 13, Special Facilities</i> .	O 430.1, <i>Life Cycle Asset Management</i> (O 6430.1A, <i>General Design Criteria, Division 1, General Requirements and Division 13, Special Facilities</i> )	Life Cycle Asset Management	24	Professional Skills Training HR2 <i>Cheri Carter</i> 202-426-1347	\$0
			Code of Federal Regulations at DOE Facilities	8	General Physics (through OH) 513-865-3110	\$0